

## CLAIMS

1. Transmitting means (12) for transmitting data packets in a wireless network, wherein at least some of the data packets are arranged to include clock data for use at a receiving means (14) in the network for clock reconstruction at the receiving means (14), the transmitting means (12) including processing means (22) and operating system means (24) connected to a network controller (26) for delivering the data packets to the network, wherein the transmitting means (12) is arranged to identify packets arriving at the network controller (26) and which require clock data, and wherein the network controller (26) is arranged to insert the clock data within the said identified packet prior to transmission of the packet.

2. Transmitting means as defined in Claim 1 wherein the network controller (26) is arranged to read a memory-mapped clock (20) in order to obtain the clock reference data.

3. Transmitting means as claimed in Claim 1 or 2 and arranged to insert clock reference data into packets that are to be resent over the network.

4. Transmitting means as claimed in Claim 1, 2 or 3 and arranged to employ a setting on a datagram socket in order to identify a packet for the inclusion of clock reference data.

5. Transmitting means as claimed in Claim 4 and arranged such that the setting on the datagram socket further identifies where within the packet the clock reference data is to be inserted.

6. Transmitting means as claimed in any one of Claims 1-3 and arranged to deliver the clock signal as out-of-band data.

7. Transmitting means as defined in any one or more of Claims 1-6,

and arranged such that the clock reference is included within packets along with data to be transmitted over the network.

8. Transmitting means as claimed in any one or more of Claims 1-7,  
5 and arranged to obtain clock reference data from a plurality of clocks running at different rates.

9. Transmitting means as claimed in Claim 8 and arranged to  
include within a packet a reference identifying which of the plurality of clocks is  
10 to be accessed for providing the clock reference data.

10. Transmitting means as claimed in Claim 9, wherein the operating  
system (24) is arranged to set an offset and length within a packet in which the  
clock reference data is to be inserted.

15  
11. Receiving means (14) for receiving signals delivered over a  
wireless network and which include packets with clock reference data from a  
transmitting means (12) for reconstruction of a clock reference at the receiving  
means (14), the receiving means (14) including a front end comprising a  
20 wireless network controller (30) connected to operating system means (32),  
wherein the said front end (30, 32) is arranged to identify clock reference data  
in a packet and to synchronise a clock (38) of the receiving means (14)  
accordingly.

25 12. Receiving means as claimed in Claim 11, wherein the clock is  
arranged to be set by means of the wireless network controller (30).

13. Receiving means as claimed in Claim 11, wherein the clock is  
arranged to be set by means of the operating system (32).

30 14. Receiving means as claimed in Claim 11, 12 or 13 and arranged  
to identify data entering a particular socket therein for identification of the clock

reference data.

15        15.     Receiving means as claimed in any one or more of Claims 11-14, wherein the clock is arranged to be set directly from the reconstructed clock data.

10        16.     Receiving means as claimed in any one or more of Claims 11-14, and including feedback means arranged to control alteration of a local clock on the basis of the recovered clock data.

15        17.     A method including the step of synchronising a receiving means (14) to a clock of a transmitting means (12) over a wireless network, the transmitting means (12) including processing means (22) and operating system means (24) for delivering data packets to the network and including the step of inserting, at the wireless network controller (26), clock reference data into identified packets and prior to delivery of the packets onto the wireless network.

20        18.     A system (10) of synchronising a receiving means (14) to a clock of a transmitting means (12) over a wireless network, the transmitting means (12) including processing means (22) and operating system means (24) for delivering data packets to the network, including means for identifying the data packets in which clock reference data is to be inserted and means for inserting, at the wireless network controller (24), clock reference data into the identified packets and prior to delivery of the packets onto the wireless network.

30        19.     Transmitting means (12) for transmitting data packets in a wireless network, wherein at least some of the data packets are arranged to include clock data for use at receiving means (14) in the network for clock reconstruction at the receiving means (14), the transmitting means (12) including processing means (22) and operating system means (24) connected

to a network controller for delivering the data packets to the network, and including means for determining receipt at the receiving means (14) of the data packets sent over the network and arranged to resend the packet if receipt is not acknowledged, the network controller (26) further being arranged to insert  
5 updated clock reference data prior to resending a packet.

20. Transmitting means as claimed in Claim 19 and further comprising a transmitting means as claimed in any one or more of Claims 1 to  
10 10.

21. A method of synchronising the clock of a receiving means (14) to a clock signal from a transmitting means (12) in a wireless network, wherein the clock at the receiving means (14) is reconstructed from a data packet delivered from the transmitting means (12) and including the step of monitoring  
15 acknowledgement of receipt of the packet at the receiving means (14), and resending the said packet if receipt is not acknowledged, and including the step of inserting updated clock reference data in the packet prior to resending the packet.

20 22. A method as claimed in Claim 21, and further comprising the method as claimed in Claim 17.